The Canadian National Advisory Committee on Immunization (NACI) and The Society of Obstetricians and Gynaecologists of Canada (SOGC) now recommend immunization with the Tdap (tetanus, diphtheria, and pertussis) vaccine in every pregnancy, irrespective of previous immunization history. The SOGC recommends immunization to be provided ideally between **27 and 32 weeks of pregnancy**. Over the past 10 years in Alberta, there have been approximately 60 cases of pertussis (also known as whooping cough) in infants less than 2 months of age. In 3 of those cases, the infants died. Because of this, we now recommend pregnant women to be re-immunized with the Tdap vaccine in every pregnancy. The antibodies you make in response to this injection will cross the placenta and help protect your baby until they are old enough to get a vaccine of their own, at the age of 2 months.

You can get your Tdap vaccine at your **local public health clinic or any pharmacy** that are able to do vaccines. This vaccination is known to be safe in pregnancy and the cost is covered for all pregnant patients. It consists of one intramuscular injection usually into your upper arm.

Frequently asked questions:

1. What is pertussis? Pertussis, or whooping cough, is a transmissible respiratory infection caused by the *Bordetella pertussis* bacterium. Infants who have not started or completed their routine immunizations are at the greatest risk for severe disease and death.

2. Is pertussis an issue in Canada nowadays? After the acellular pertussis vaccine was introduced in Canada in 1997/1998, there was a steady decline in the number of pertussis cases until 2011. However, between 2012 and 2015 numerous outbreaks occurred across Canada. Seventy-percent of admissions to hospital for pertussis occurred in infants younger than four months of age, and almost all deaths from pertussis (14 out of 15 between 2006 and 2015) happened among infants younger than two months of age, before the infants received their first vaccines.

3. Why should the Tdap vaccine be offered to pregnant women? Tdap vaccination in pregnancy provides protection to infants until they are able to receive the pertussis vaccine (DTaP) at two months of age. Studies have shown that 9 out of 10 infants under 3 months of age are protected following maternal vaccination against pertussis during pregnancy.

4. Is the Tdap vaccine safe during pregnancy? The vaccine is safe for the mother and the fetus. The most common side effects after receiving a pertussis-containing vaccine are injection site reactions (redness, swelling, or pain). Other less common symptoms may include fever, chills, and headache.

5. Who should be vaccinated? All pregnant women should receive the Tdap vaccine in every pregnancy, irrespective of prior immunization history.

6. Can the Tdap vaccine be given after 32 weeks of gestational age? The vaccine should still be offered after 32 weeks of gestational age, and until delivery, since it will prevent the mother from becoming a source of infection to the infant. However, the antibody levels may not be sufficient to protect the infant; it takes at least four weeks after vaccination to reach peak anti-pertussis antibody levels.

7. Can the Tdap vaccine be given in the first trimester or earlier in the second trimester? Data supports vaccination as early as 13 weeks and some data indicates that earlier vaccination results in higher antibody binding, but safety data is limited for earlier in the second trimester, and even more limited for vaccination before 13 weeks. If the Tdap vaccine was provided early in pregnancy (e.g. prior to recognition of pregnancy), it is not necessary to re-immunize after 13 weeks of gestation.

8. Should the Tdap vaccine be offered after delivery to those women who did not receive the vaccine during pregnancy? Yes. Since newborns are not immunized until after two months of age, it is vital that these women are protected to avoid becoming a source of infection to their infants. However, vaccination during pregnancy is the preferred strategy to protect the infant.

9. Can the Tdap vaccine be given to breastfeeding patients? Yes. The vaccine can be given to women who are breastfeeding and some protection can be passed to the infant this way. However, waiting to get the vaccine until after baby is born is not ideal because it takes four weeks after vaccination to reach peak anti-pertussis antibody levels. If the vaccine is given during pregnancy, nursing mothers will have protective antibodies in their breast milk that can be passed on to the infant as soon as the mother's milk comes in.

10. Who should NOT receive the vaccine? The vaccine should not be administered to anyone with a history of anaphylactic reaction to a previous dose of pertussis-containing vaccine or to any of its components.

11. Should the Tdap vaccine be offered to a pregnant woman with confirmed or suspected pertussis infection? Yes, because not every infected pregnant woman will produce sufficient antibody levels to protect the unborn infant after a natural infection, and vaccination will boost the immune system of the pregnant woman, thus, protecting the unborn infant against pertussis.

12. Can the flu shot and the Tdap vaccine be given together? Yes. Since both vaccines are made of inactivated agents, they can be administered either at the same time or in different visits, and no minimum time interval is needed between administering either of these vaccines.

13. Can the vaccine be administered at the same time as anti-D (e.g. WinRho) treatment for Rh negative women? Yes. Since it is an inactivated vaccine, there is no risk of an interaction with anti-D treatment.

14. Will the Tdap vaccination during pregnancy interfere with the baby's normal response to his or her own routine vaccinations? In infants who continue their vaccine series, there is no difference in antibody levels after their fourth DTaP dose (at approximately 15 months of age), despite earlier lower antibody levels. The clinical impact of these laboratory findings is unknown, but it is clear that the burden of severe pertussis disease, hospitalization, and death disproportionately affects newborns younger than two months of age more than older children.

Thank you to the SOGC for supplying us with the information contained in the FAQs section of this handout.